

[illegible]

The diagram illustrates a distributed system architecture with three distinct layers. At the top is a rectangular box labeled "Jini Apis / Java Spaces" with the reference numeral 12. Below this is a rounded rectangular box labeled "RMI" with the reference numeral 14. At the bottom is another rectangular box labeled "TCP / IP Capable Networking" with the reference numeral 16. The boxes are arranged vertically, suggesting a stack of protocols or services.

The diagram illustrates a distributed computing system architecture. It consists of three main components arranged vertically:

- Distributed Computing Interface (102):** Represented by a rectangular box at the top.
- Messages (104):** Represented by a rounded rectangular box in the middle.
- Message Capable Networking (106):** Represented by a rectangular box at the bottom.

Each component is labeled with its name and a reference numeral (102, 104, and 106 respectively) to the right of the box.

Fig. 2

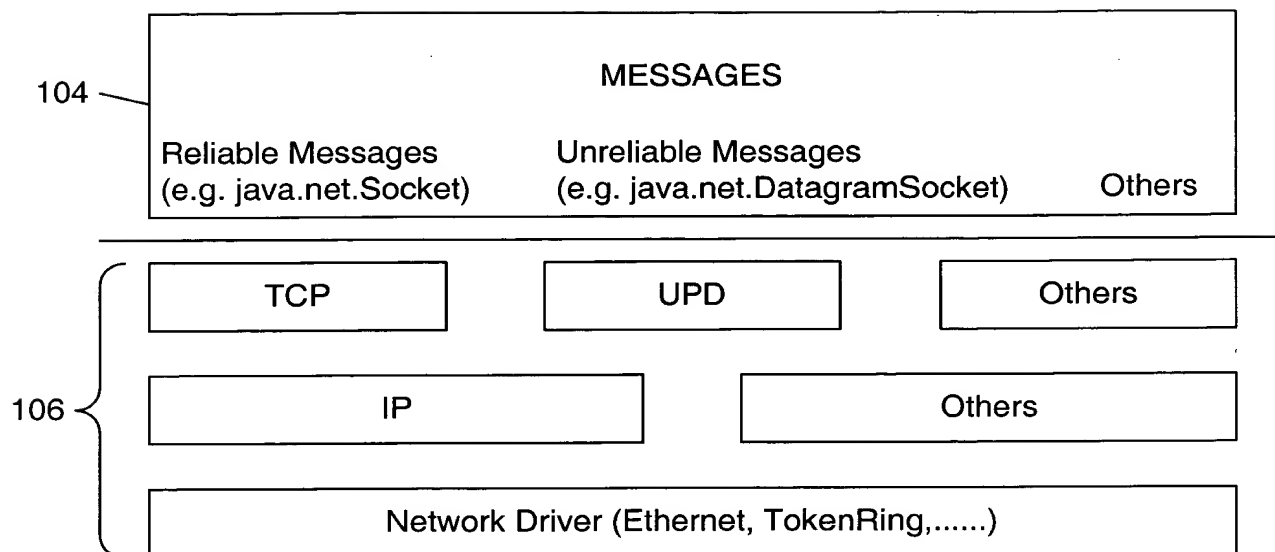


Fig. 3

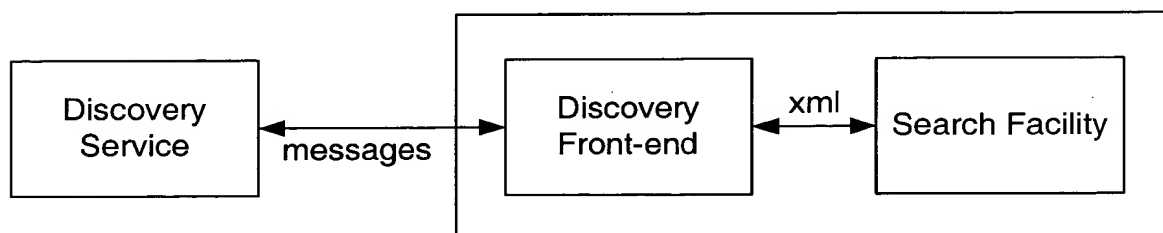


Fig. 4

Claim and Release (a lease) Find (an object)

Write and Take (an object) Notify on Write Public Apis

Dynamic XML to / from Objects

Send / Receive Byte Messages

Connection Transport

Static

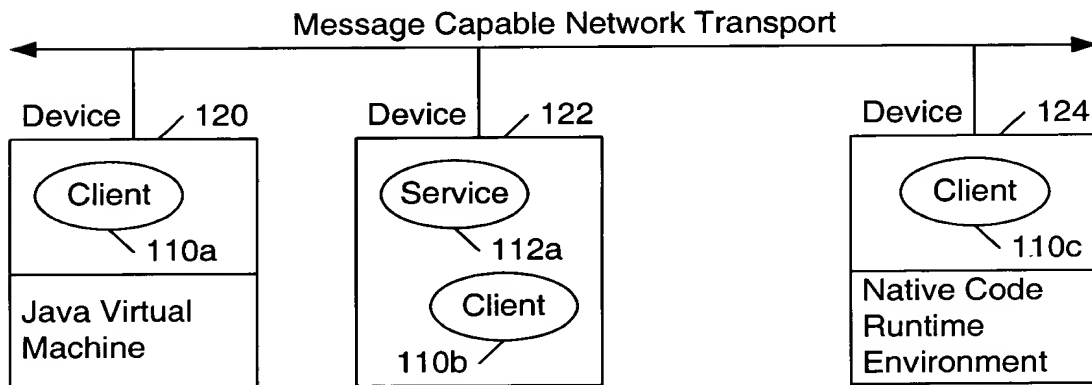
Client Profile

Static XML Message Definitions

Send / Receive Byte Messages

Connection Transport

Fig. 5



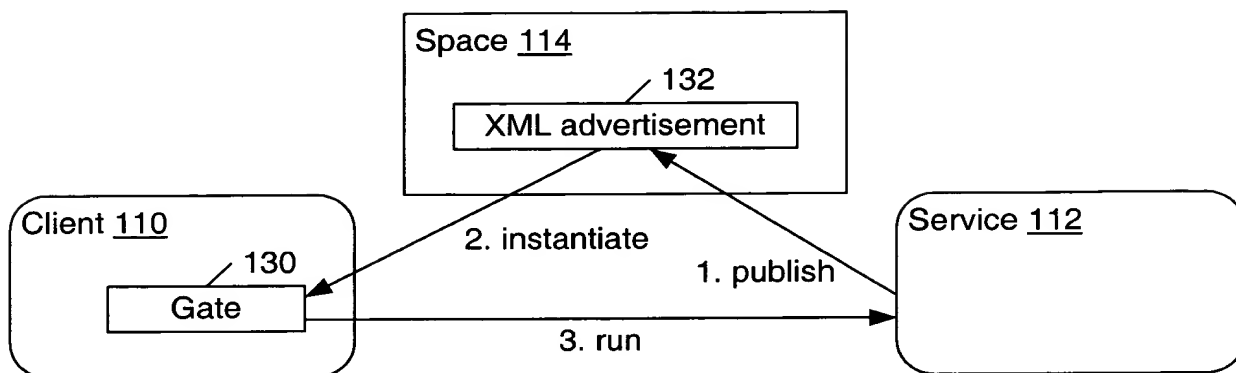


Fig. 8

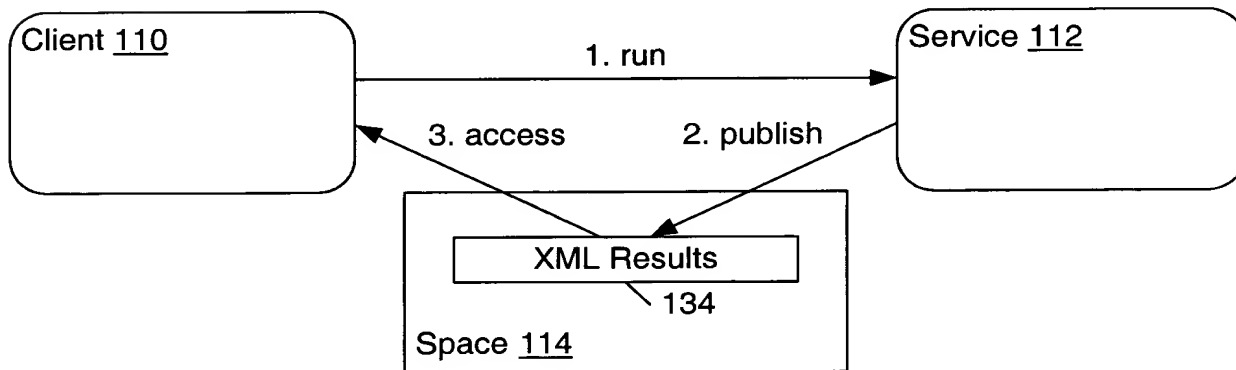


Fig. 9

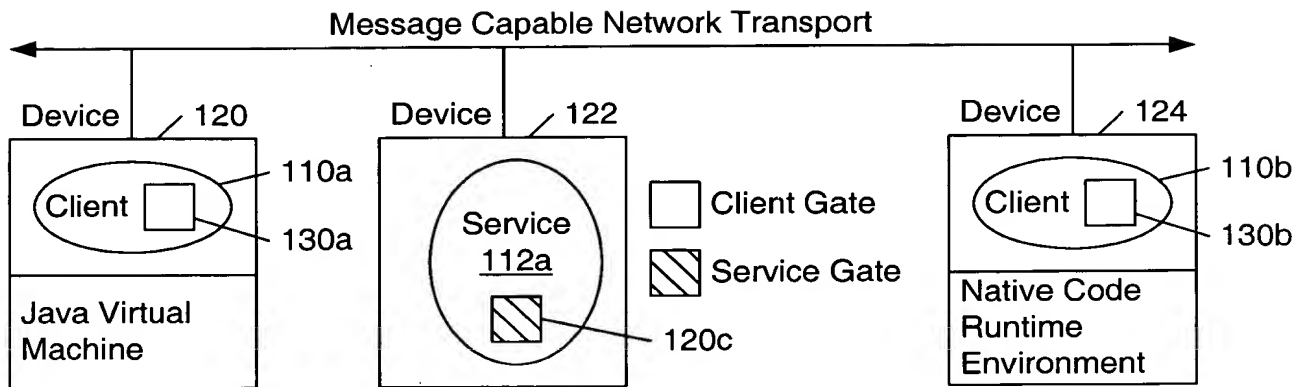


Fig. 10a

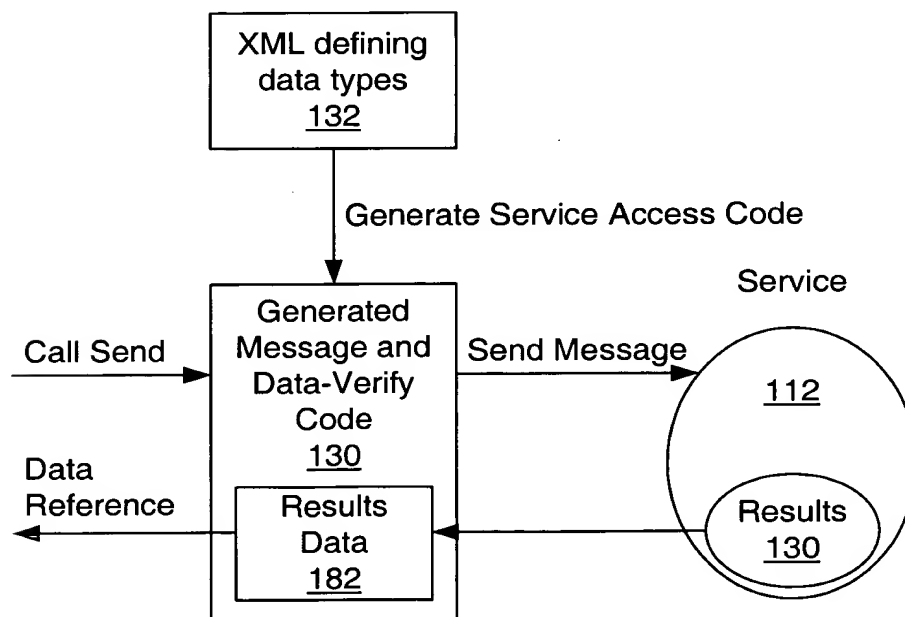
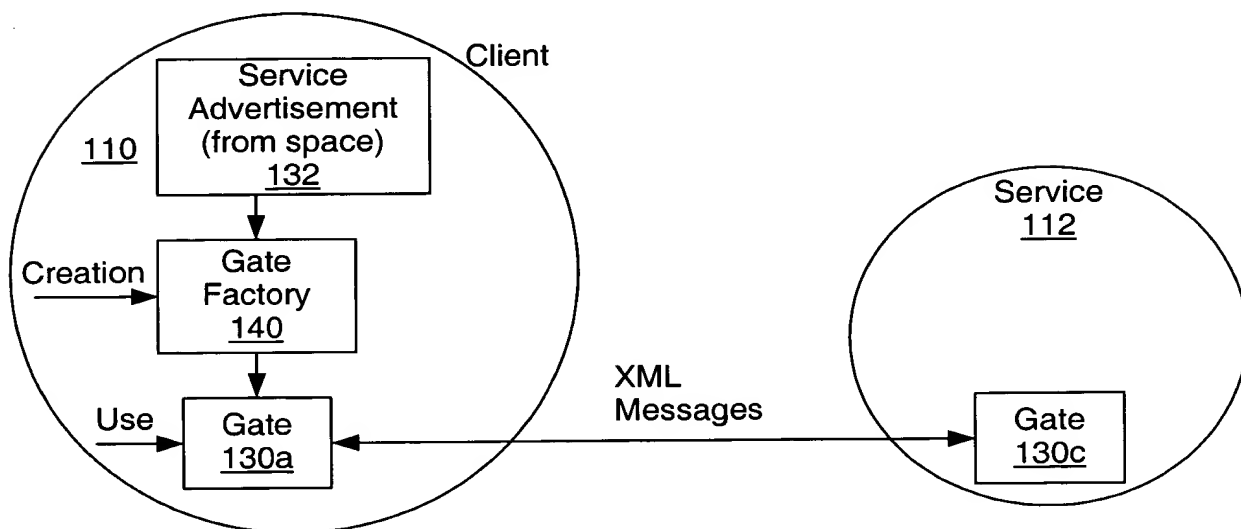


Fig. 10b



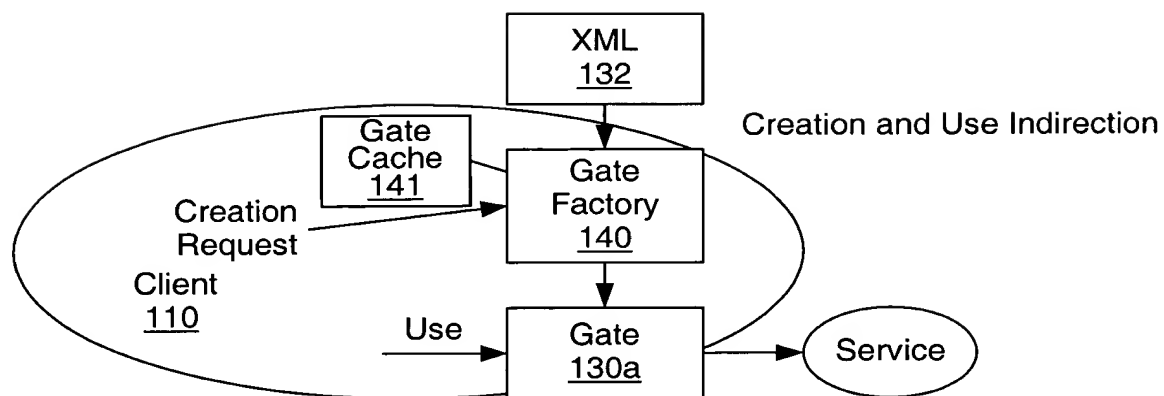


Fig. 11c

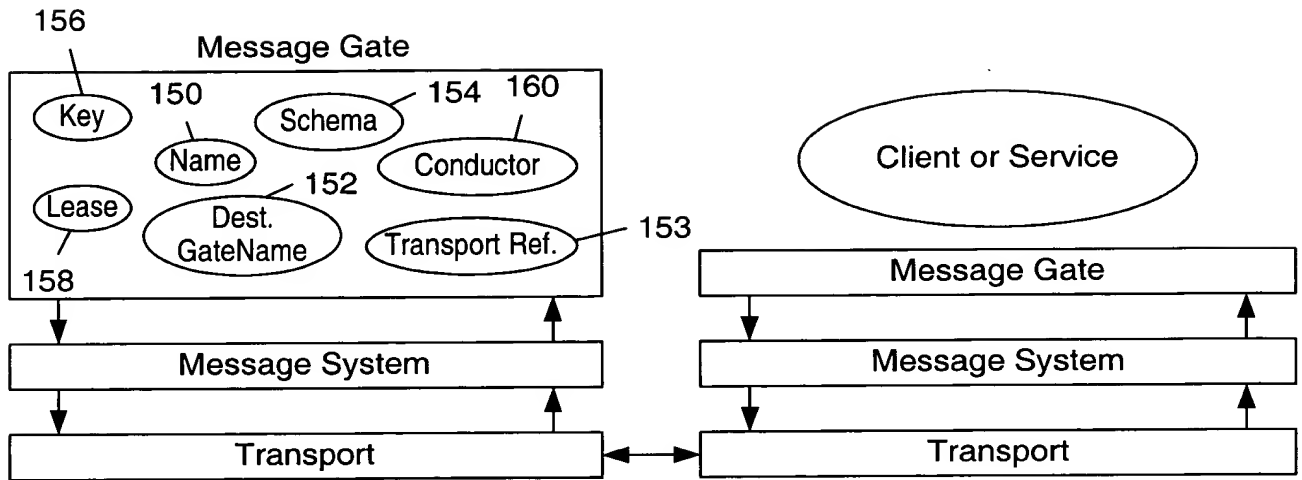


Fig. 12

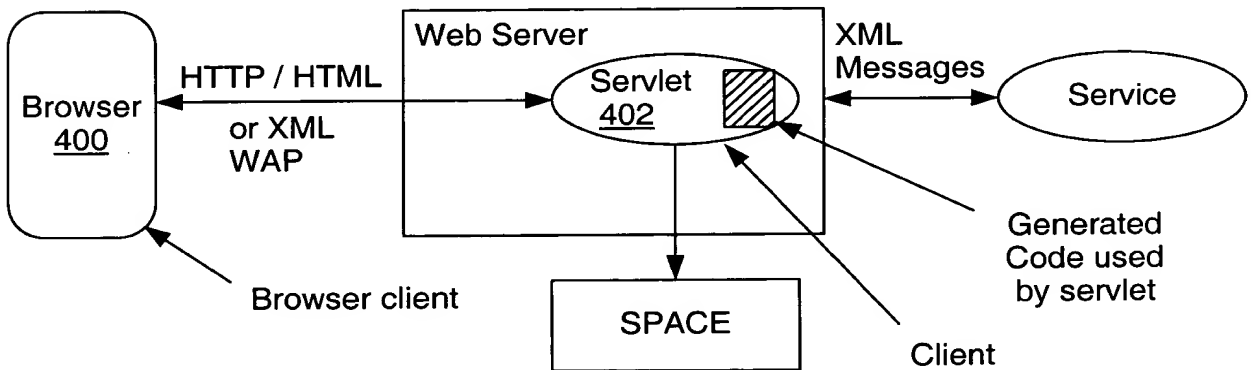


Fig. 13

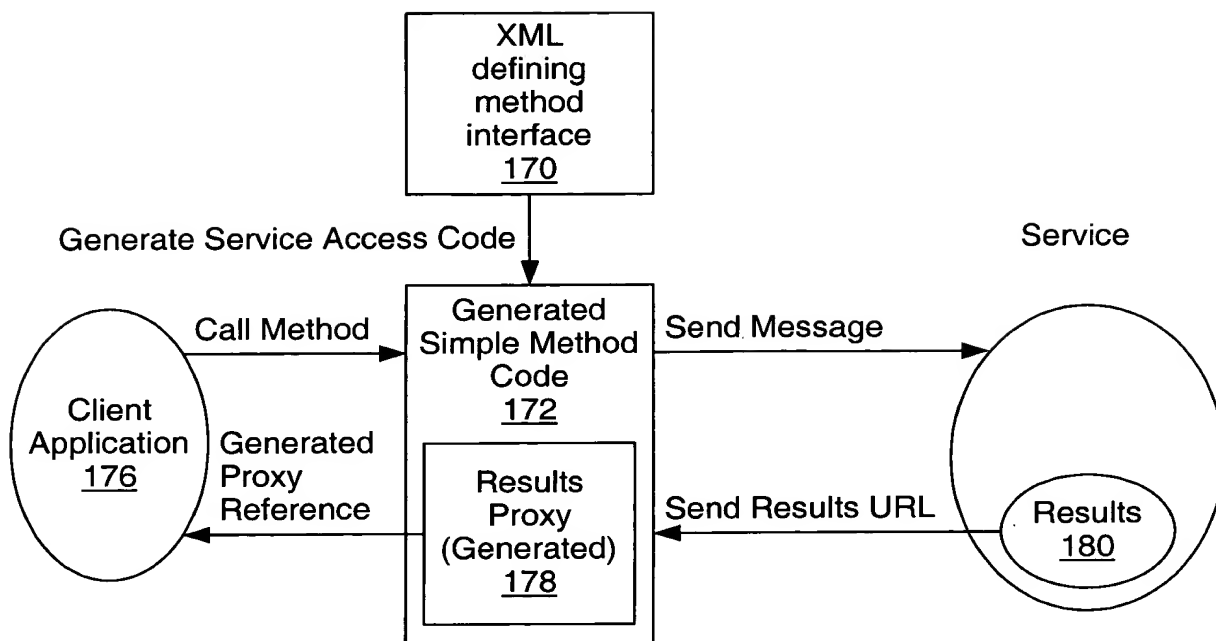


Fig. 14

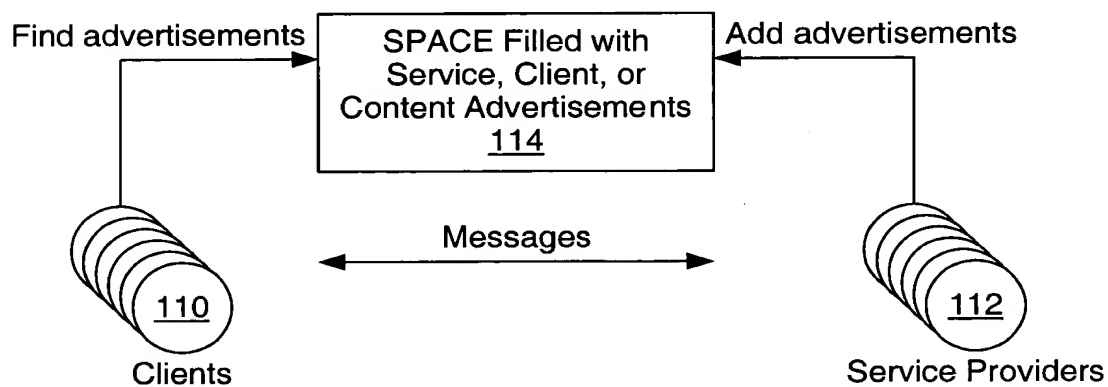


Fig. 15

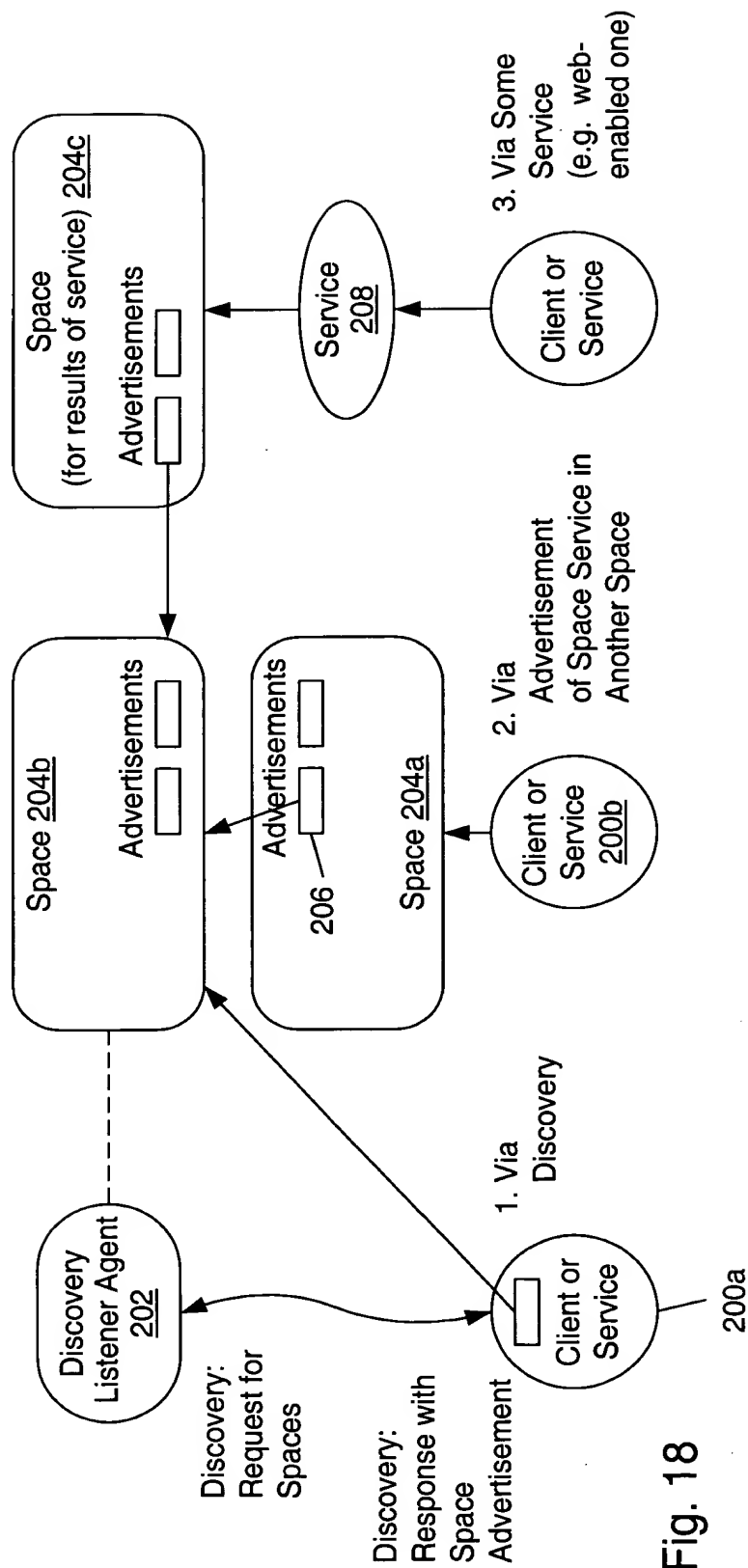


Fig. 18

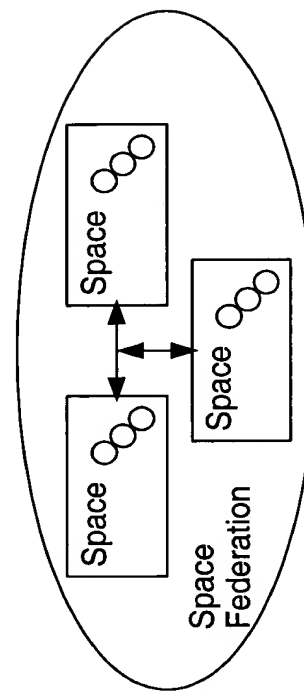


Fig. 19

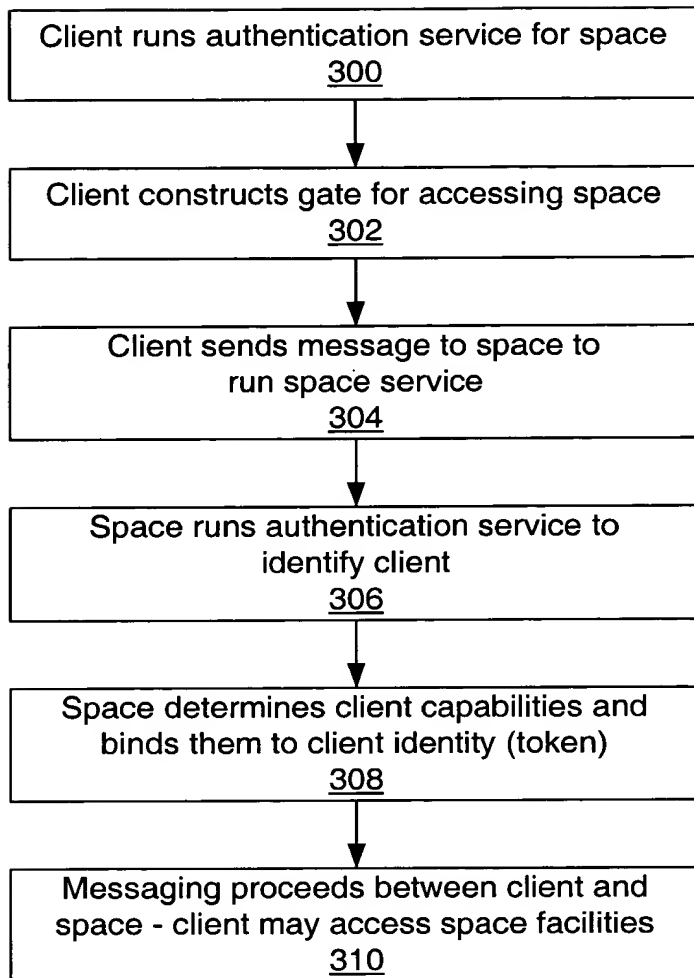


Fig. 20

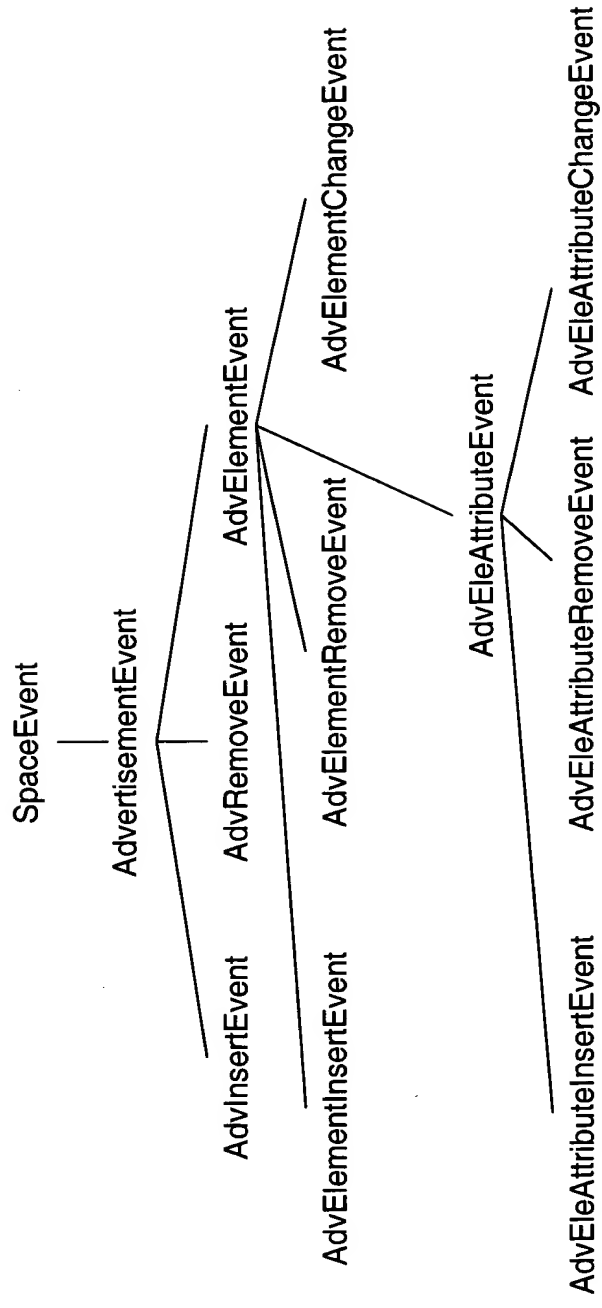


Fig. 21

```

graph TD
    320[Client selects service advertisement  
published in space  
320] --> 322[Client sends message to space requesting  
instantiation of service  
322]
    322 --> 324[Space verifies request  
324]
    324 --> 326[Space obtains lease for service  
326]
    326 --> 328[Space sends lease and service  
advertisement to client  
328]
    328 --> 330[Client runs authentication service specified  
in advertisement  
330]
    330 --> 332[Client constructs gate to access service  
332]

```

```

graph LR
    C1([Client]) --> DS[Default Space advertising additional spaces 350]
    C2([Client]) --> DS
    subgraph DS_Box [ ]
        direction TB
        DS_Text[Default Space advertising additional spaces 350]
        Hatched([352])
    end
    Hatched --> OS[OtherSpace]

```

Fig. 23

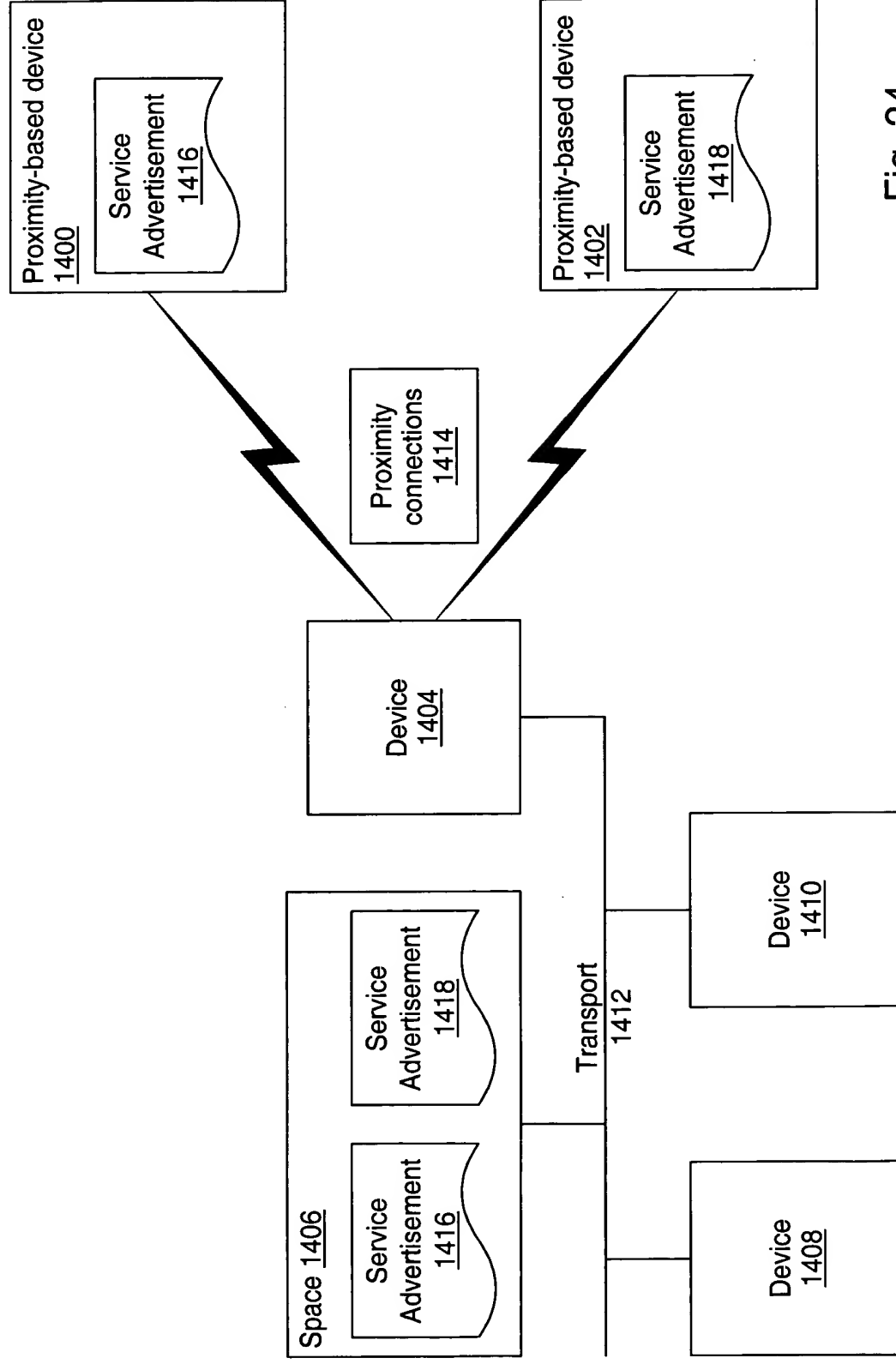


Fig. 24

Fig. 25

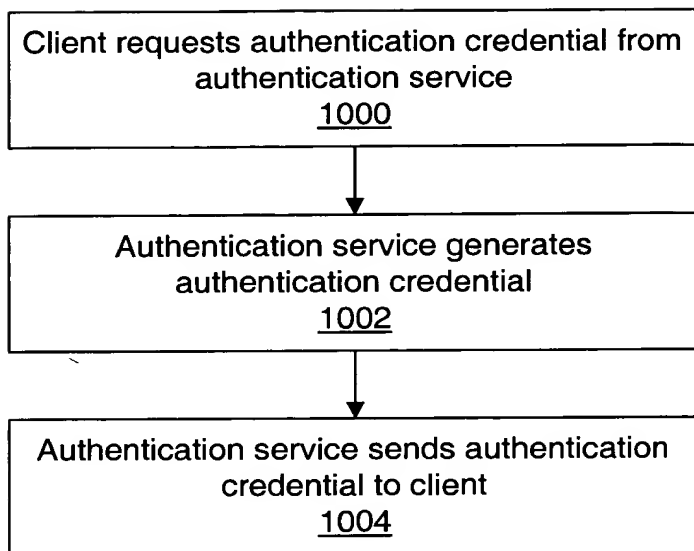


FIG. 26a

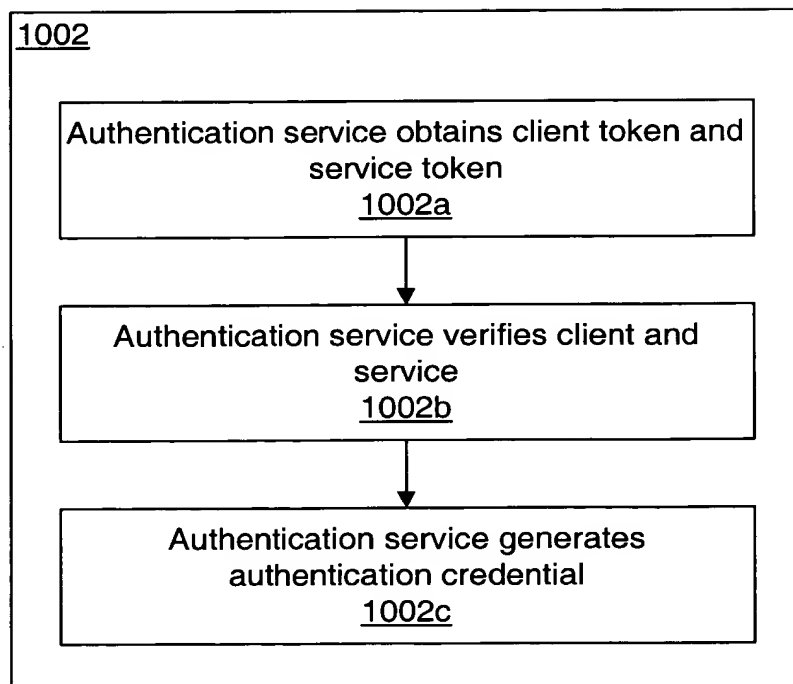


FIG. 26b

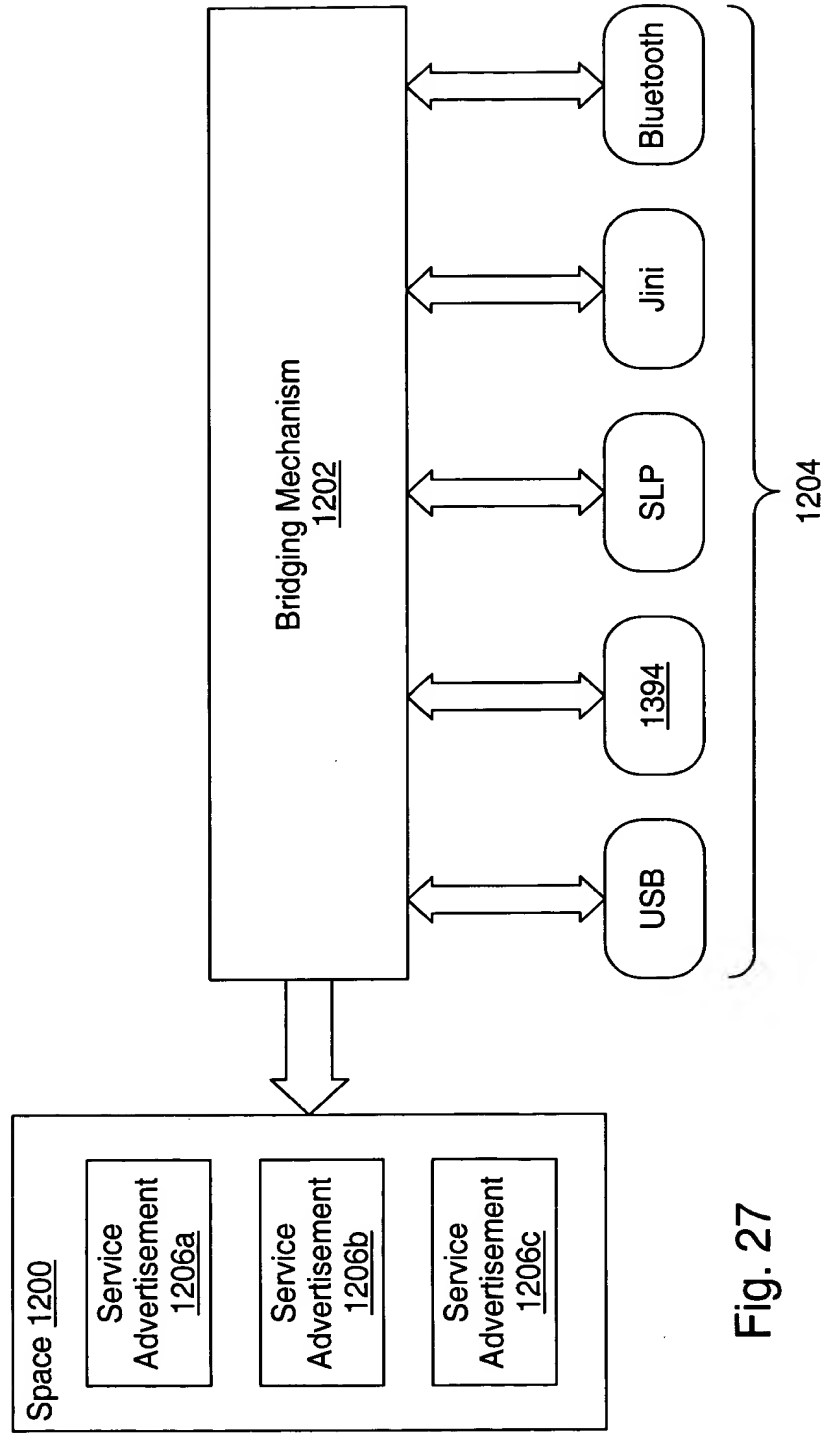


Fig. 27

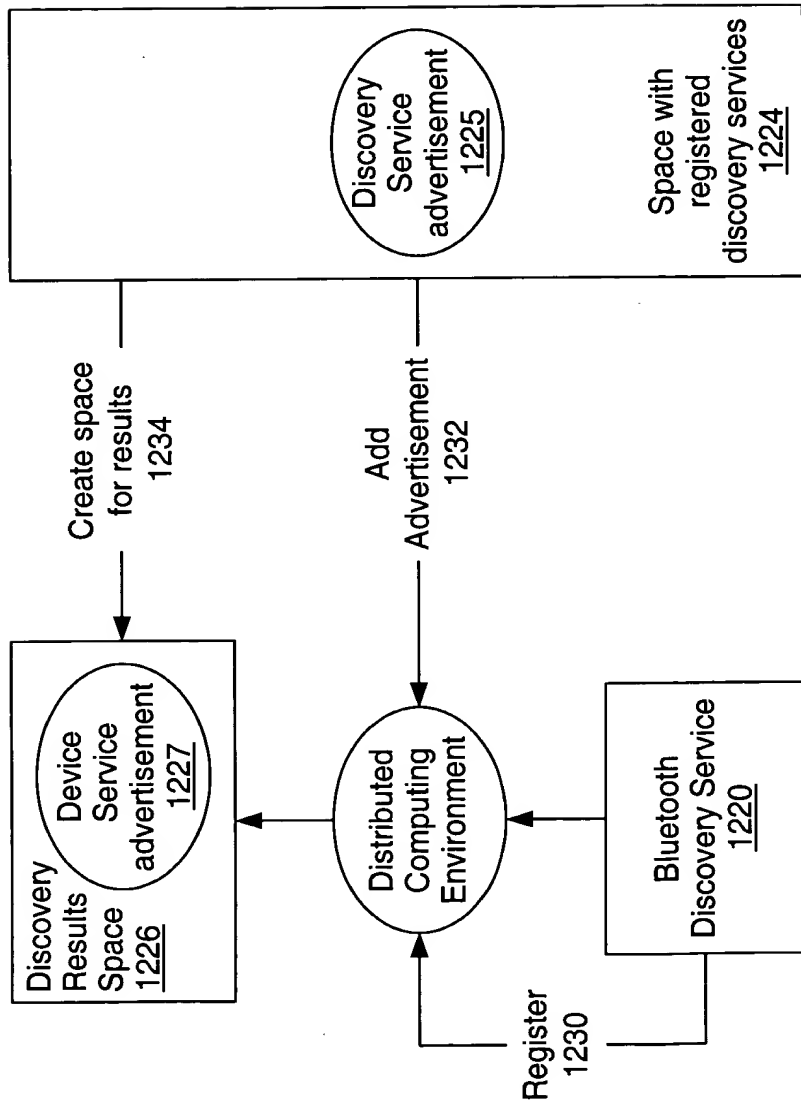


Fig. 28

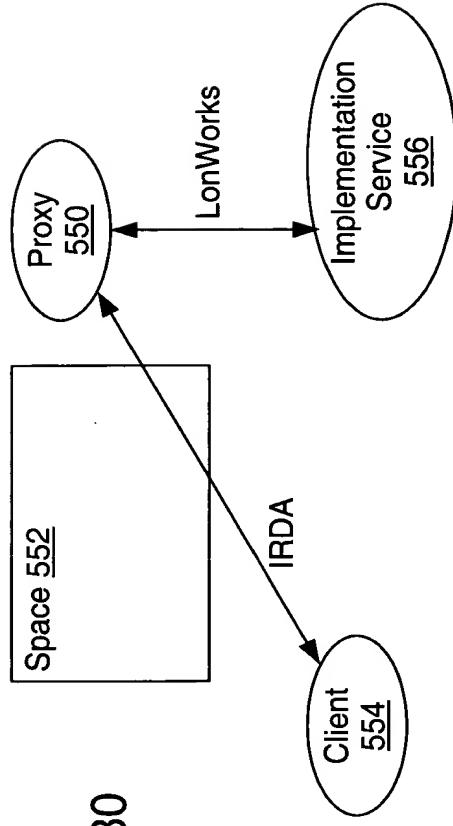


Fig. 30

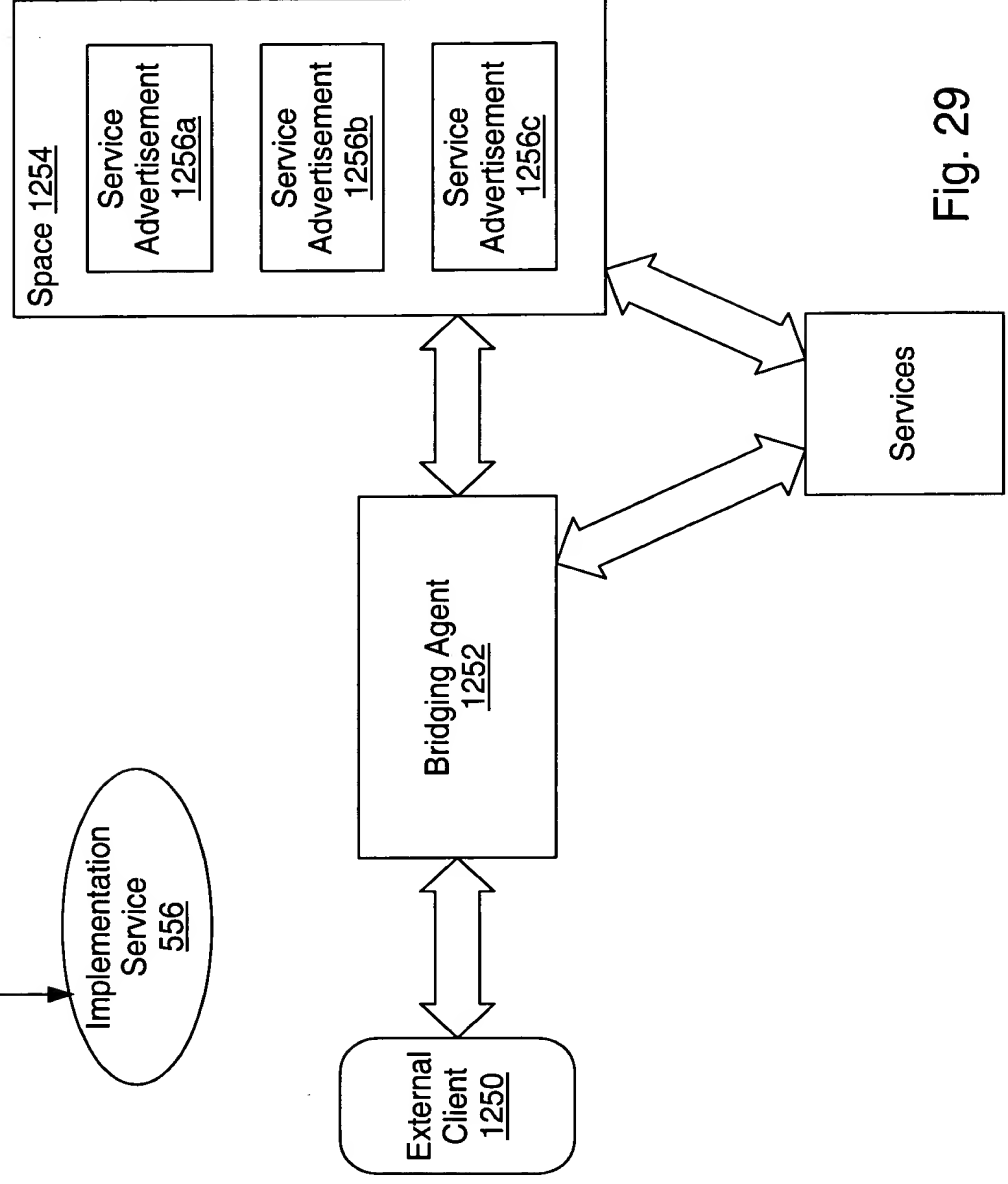


Fig. 29

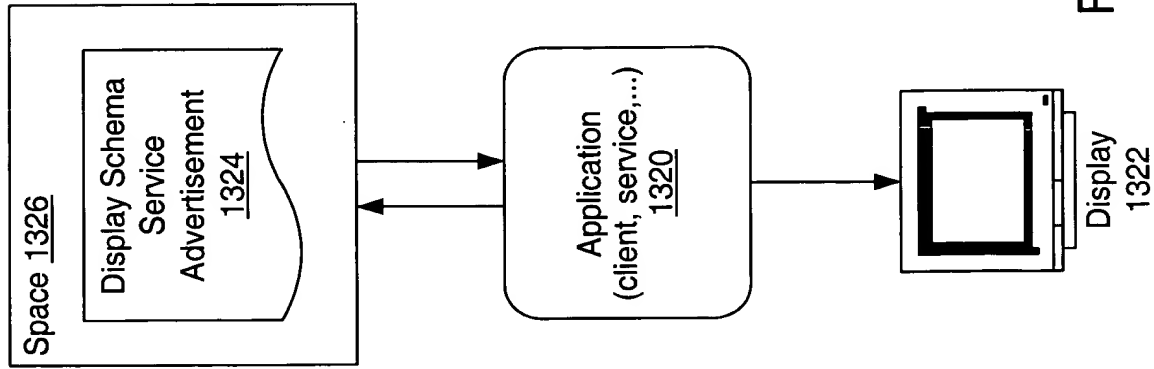


Fig. 32A

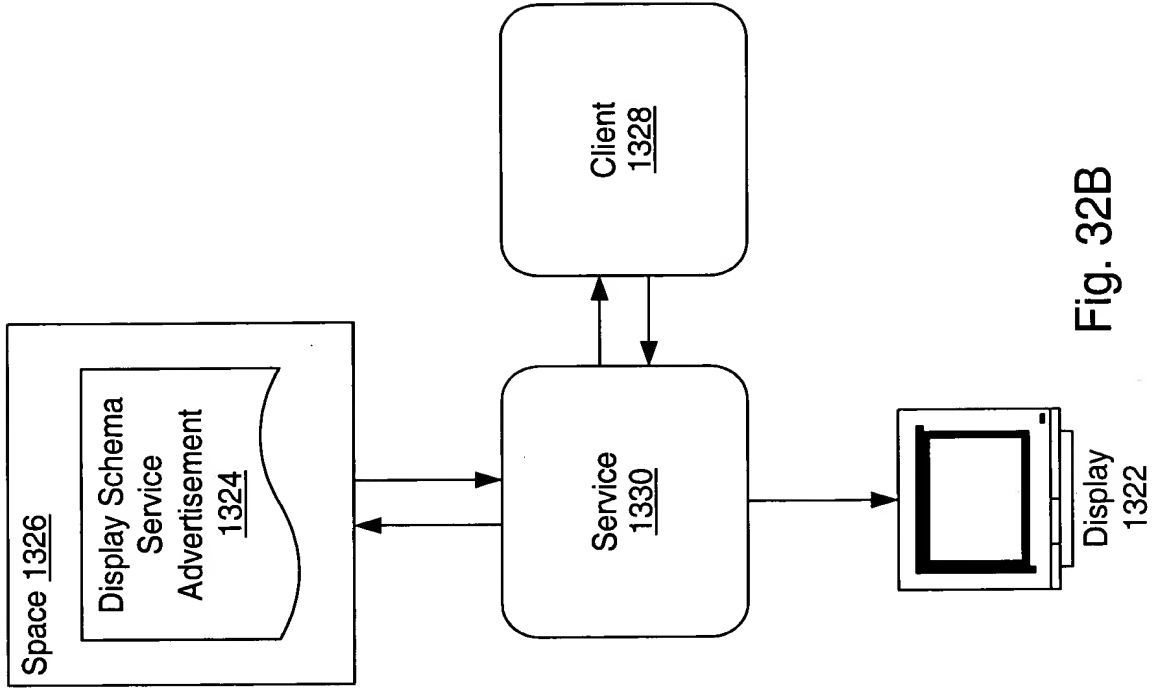


Fig. 32B

Fig. 33A
(Prior Art)

Fig. 33B
(Prior Art)

Fig. 33C

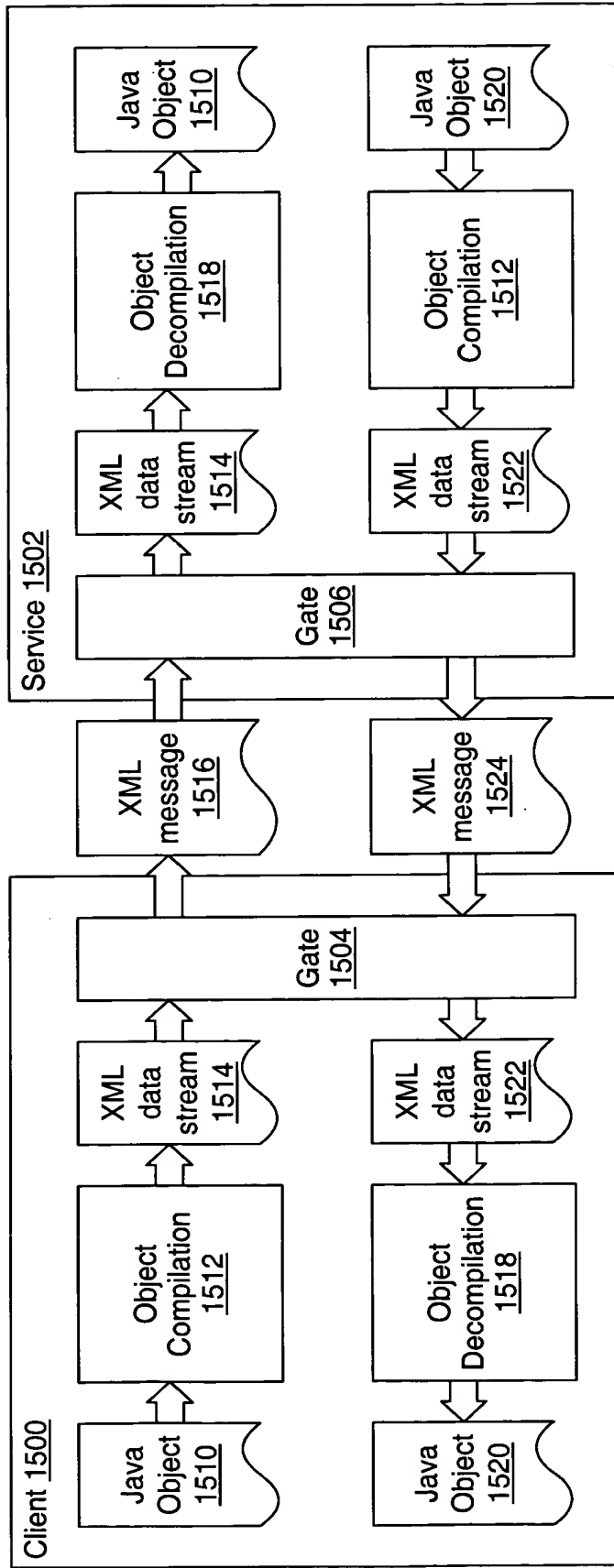


Fig. 34

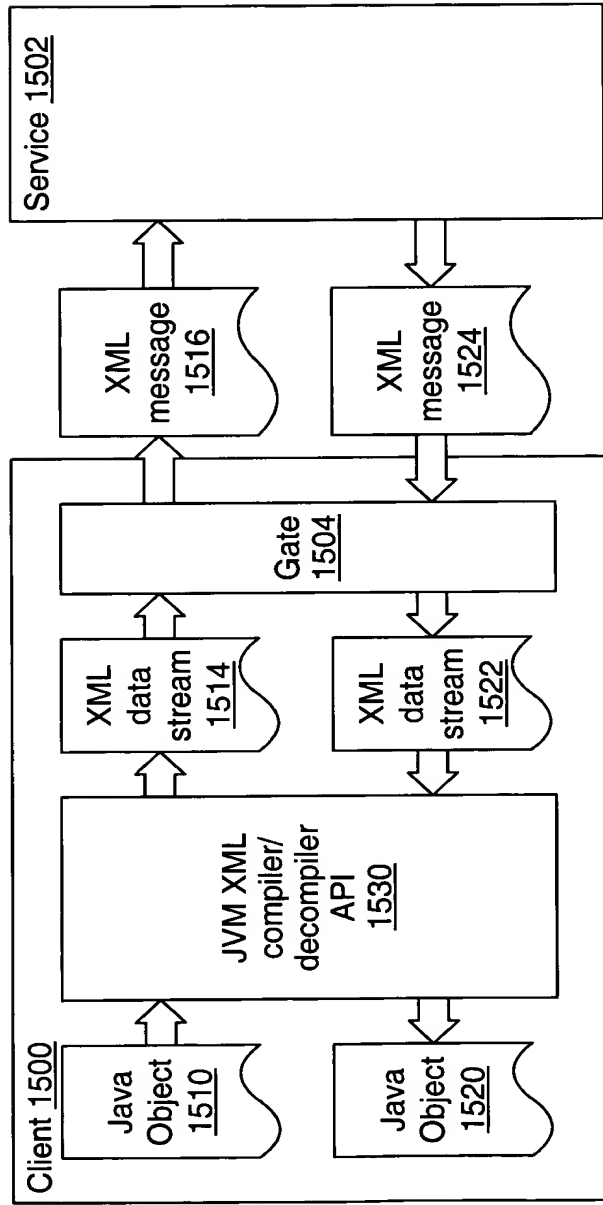


Fig. 35a

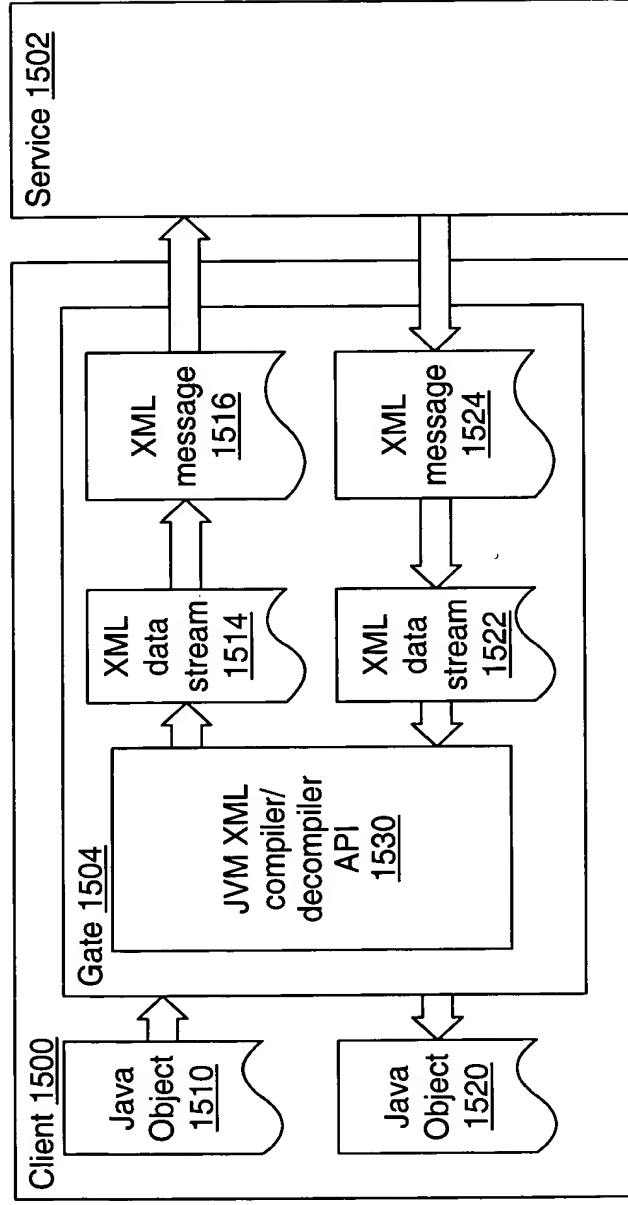


Fig. 35b

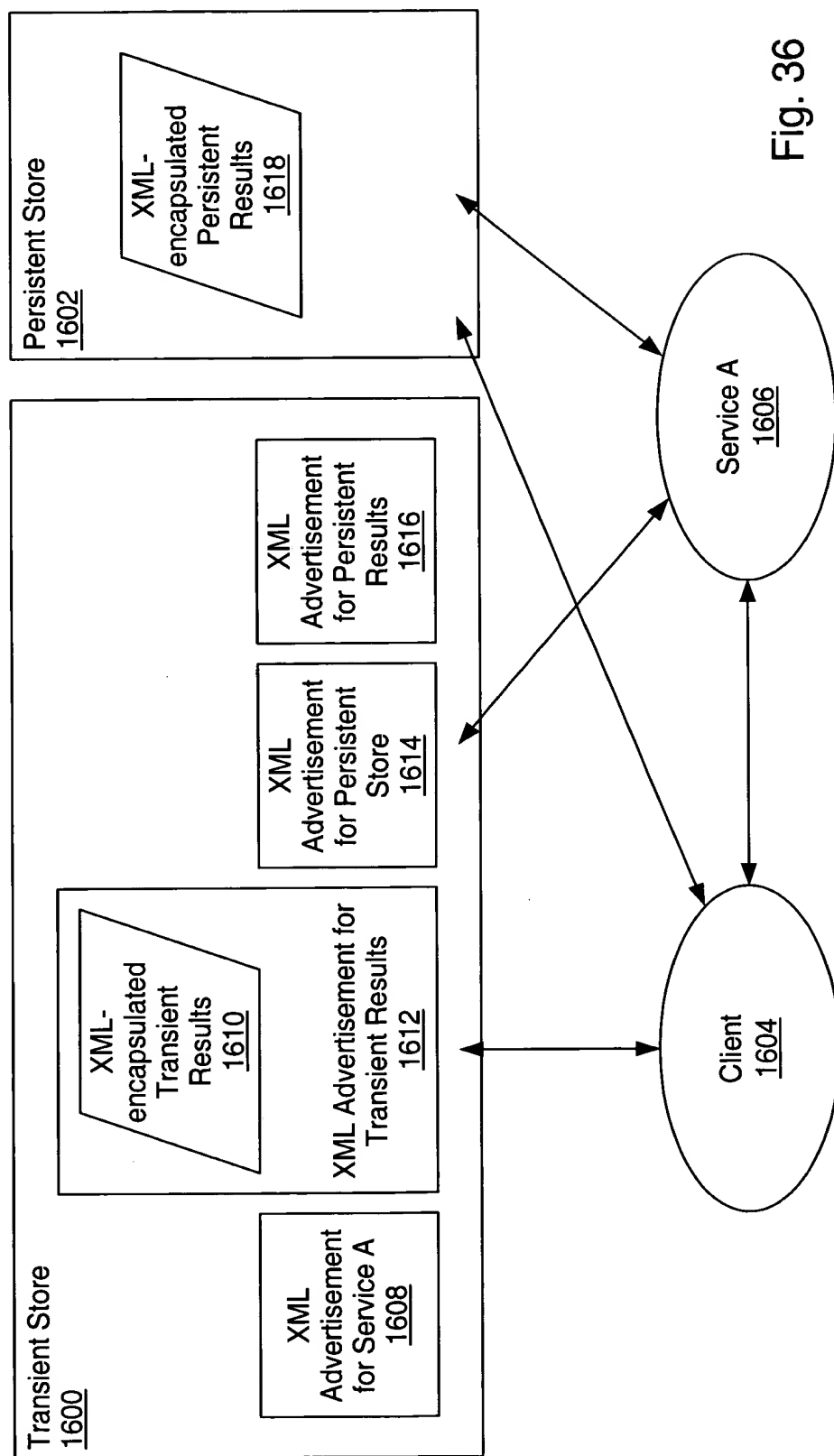


Fig. 36

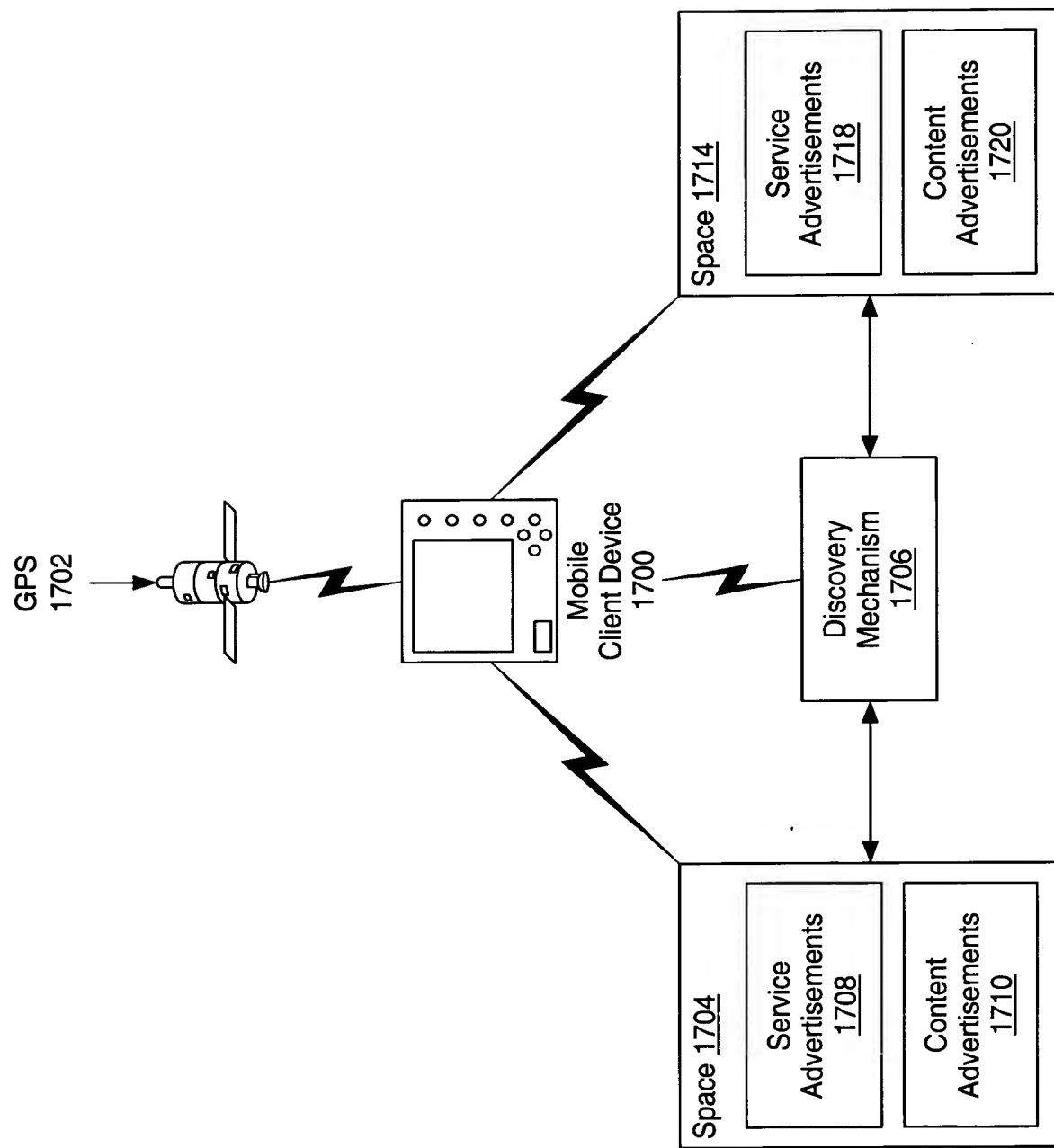


Fig. 38

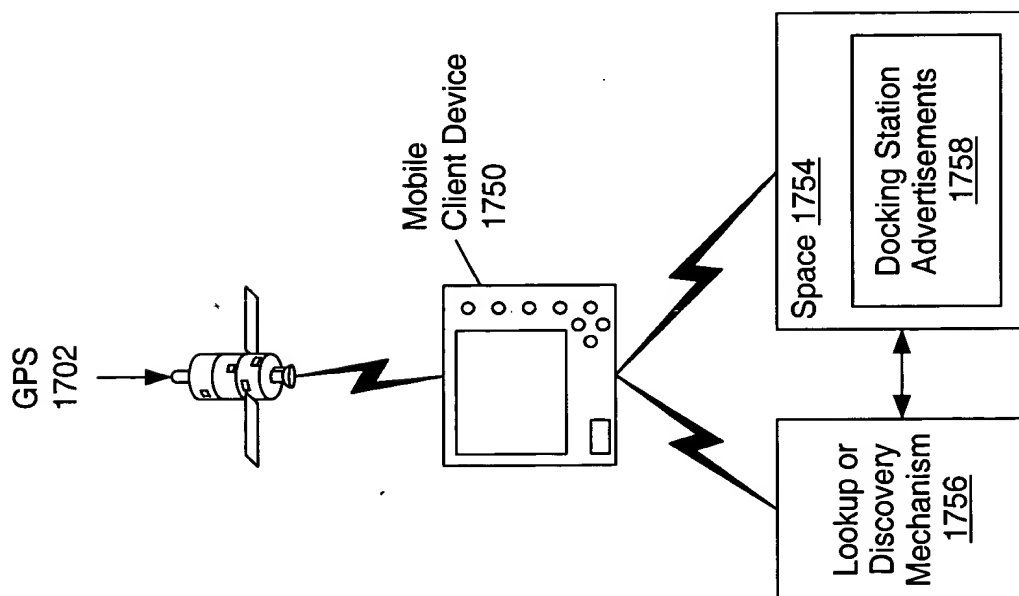


Fig. 39a

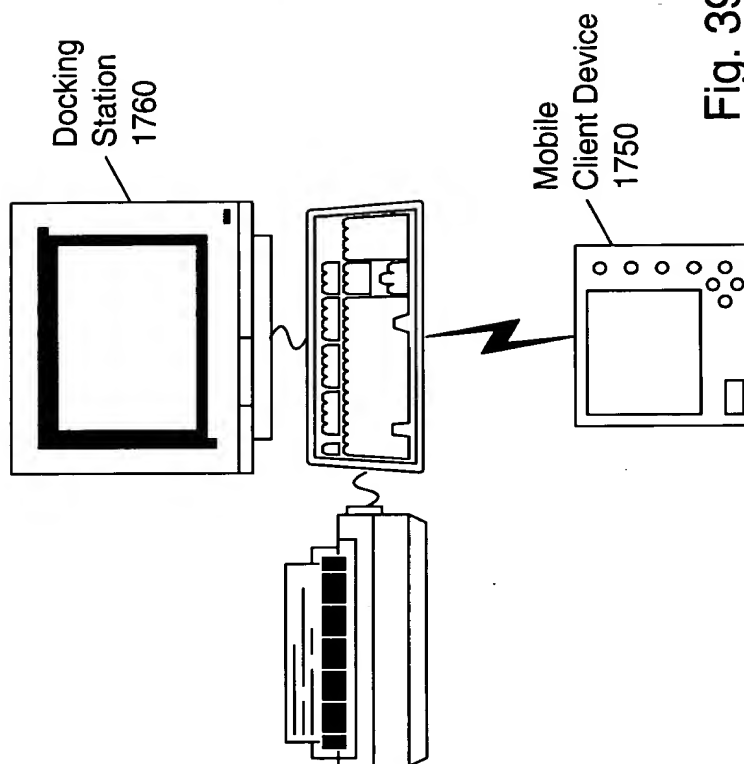
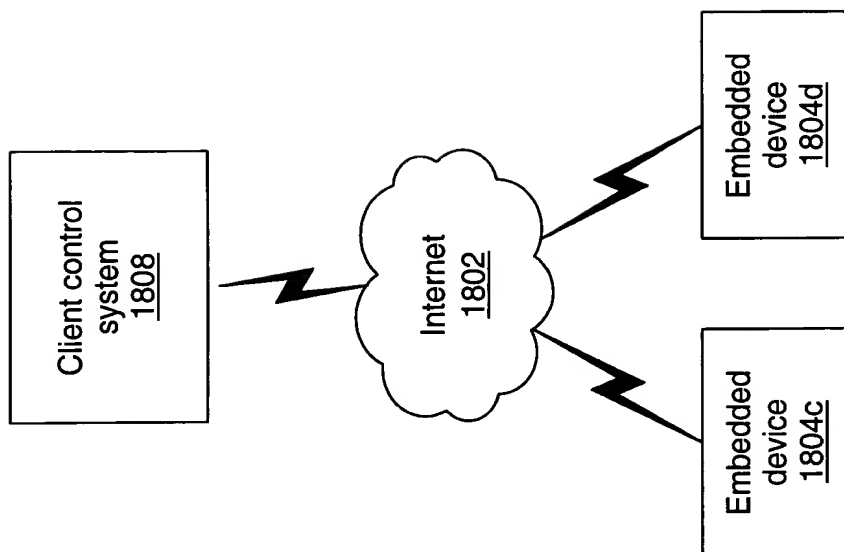
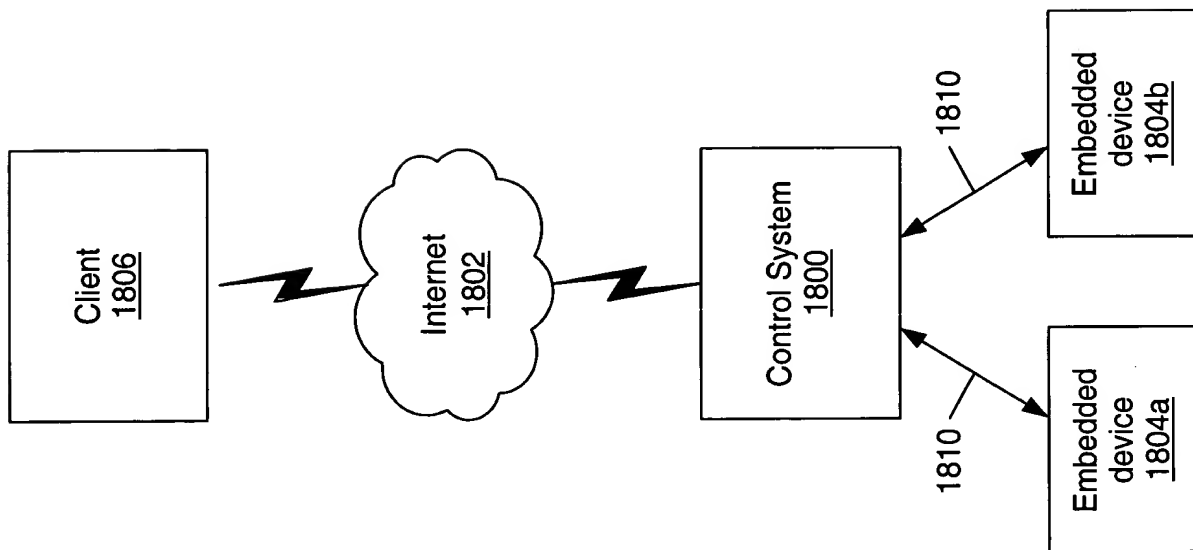


Fig. 39b



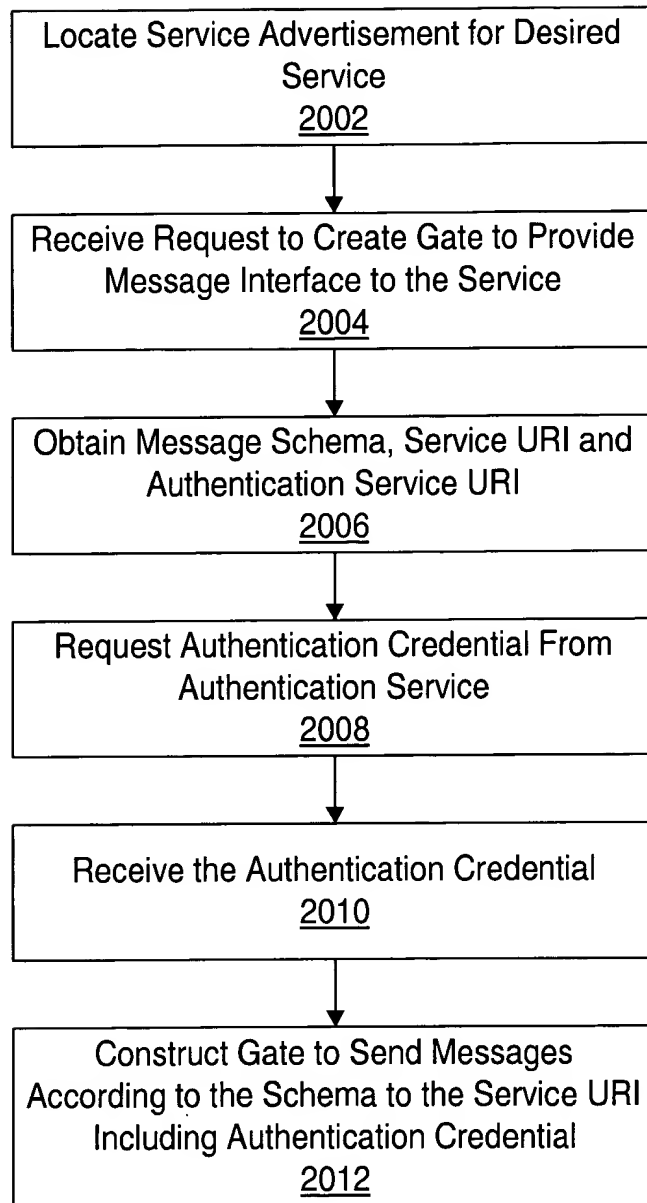


Fig. 41

0960009:091200

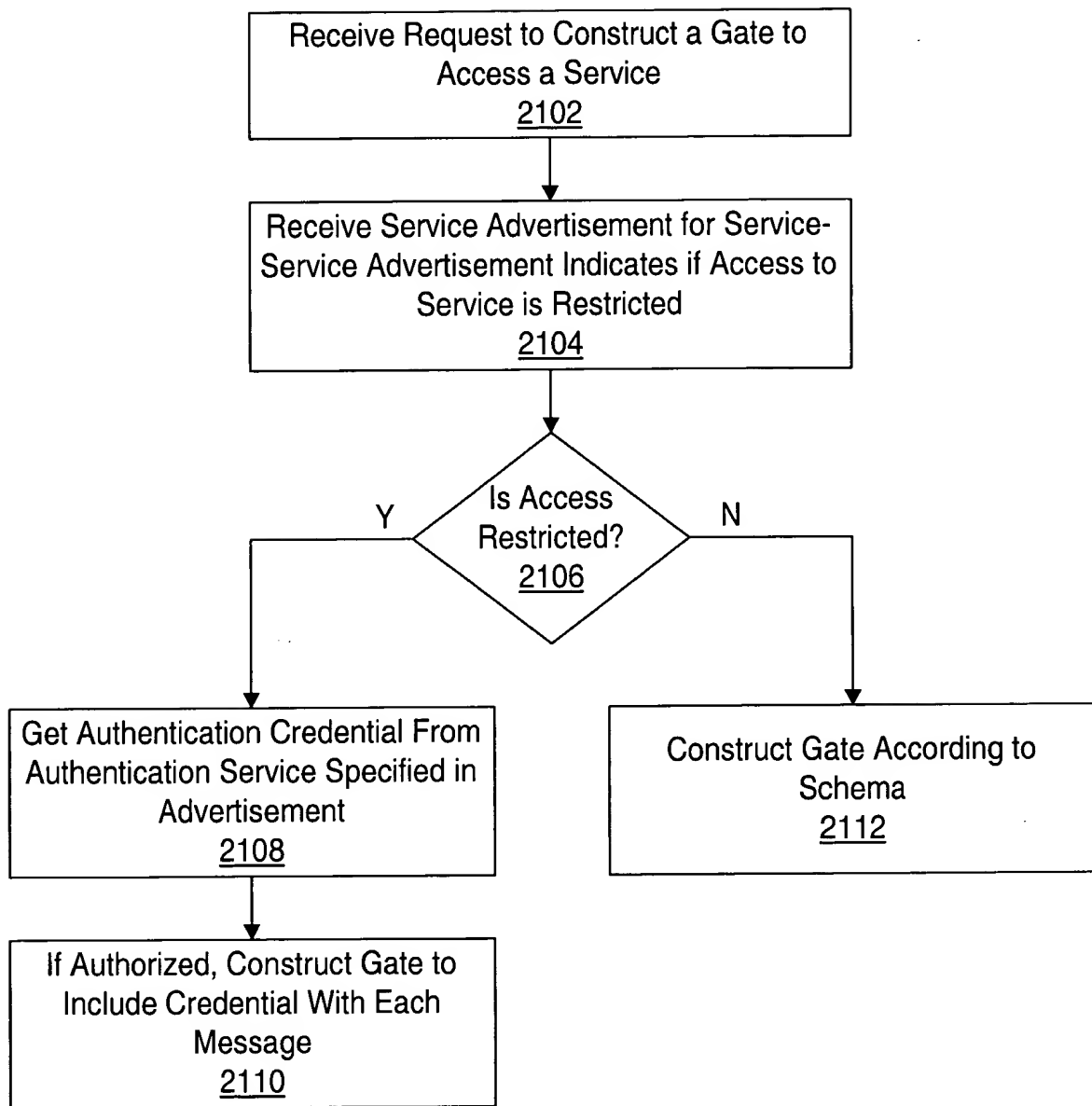


Fig. 42

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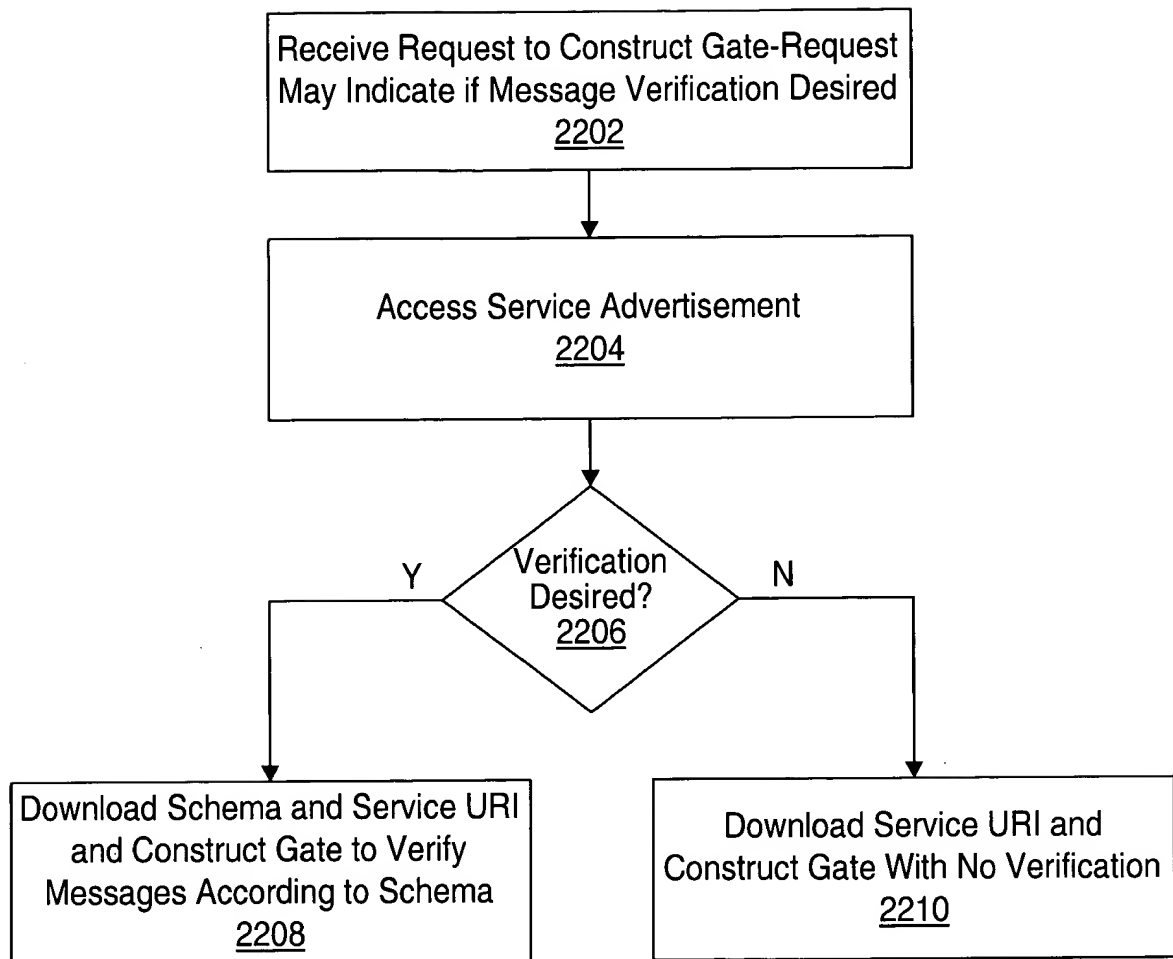


Fig. 43

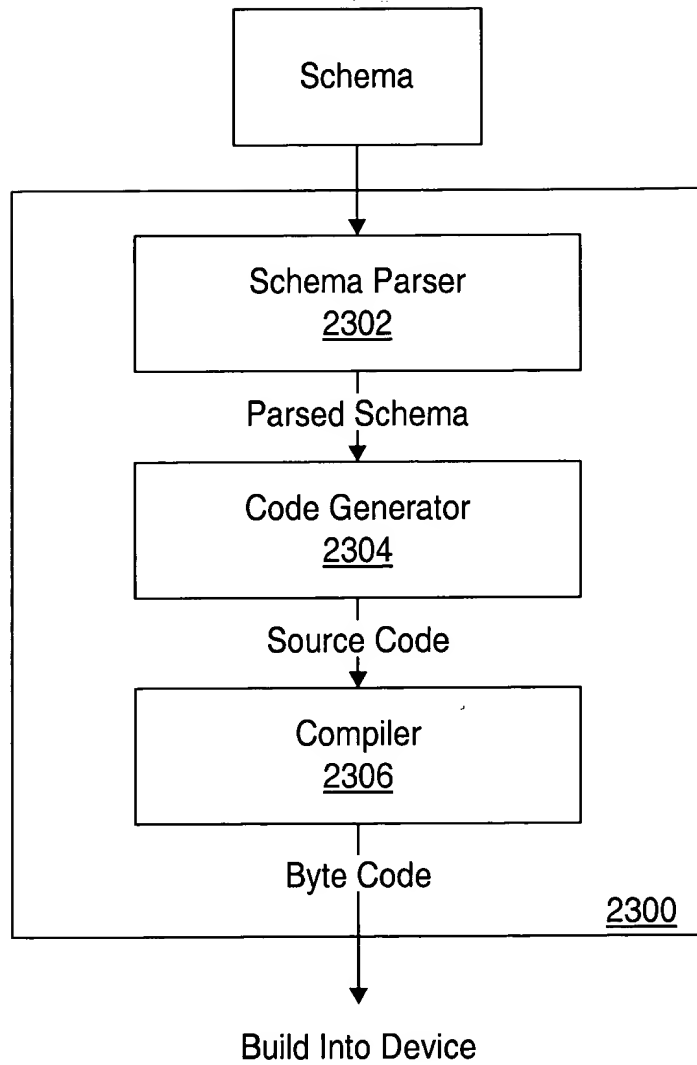


FIG. 44

```

graph TD
    2402[Locate Service Advertisement  
2402] --> 2404[Obtain Authentication Credential if  
Necessary and Receive Service URI  
From Advertisement  
2404]
    2404 --> 2406[Bind URI and/or Authentication  
Credential to Pre-generated  
Message Interface to Create Gate to  
Service  
2406]
    2406 --> 2408[Use Gate to Access Service  
2408]

```

FIG. 45